The Evaluation of the Effectiveness of Motivational Interviewing on Lifestyle Changes in Female Addicts under Way for Recovery

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Abstract

Objective: This study aimed to evaluate the efficacy of motivational interviewing on lifestyle changes in female addicts under way for recovery. **Method:** A quasi-experimental design along with pretest-posttest and control group was employed for this study. A number of 32 female addicts referring to rehabilitation centers constituted the study sample. With regard to the inclusion and exclusion criteria, these participants were selected and randomly assigned to an experimental group and a control group. The experimental group was treated with eight sessions of group motivational interviewing along with lifestyle change program. Then, lifestyle questionnaire was used for data collection. **Results:** Intervention led the experimental group to higher lifestyle scores compared to the control group. **Conclusion:** It can be concluded from the findings of this study that the addition of motivational interviewing to lifestyle change programs is an effective way to change addictive behaviors and improve lifestyle.

Keywords: Motivational Interviewing, Lifestyle Changes, Addicts under Way for Recovery

Introduction

Lifestyle is a concept proposed by Alfred Adler which is referred to as the faith and beliefs that an individual acquires in the early days of his/her life; in other words, it is a directional perceptual model (Shafiabadi & Naseri, 2012). In the new concept of health, people have the responsibility to adopt a healthy lifestyle and the achievement of this point depends on the health promotion programs. Health promotion is referred to as making people understand the factors affecting individual and social health as well as making decision to opt for appropriate health behaviors and lifestyle (Edlin & Glontary, 2004). Drug addiction hampers many natural and common behaviors in addicts' lifestyles and leaves no desire for an individual to engage in healthy recreation and natural activities so that the individual is always mentally involved in the preparation and use of psychiatric drugs or is passing the period of euphoria after taking the drug. In many cases, patients are in a state of ambivalence and doubt in terms of behavioral change, although they may also have the ability to do it. They even enumerate good reasons for change and certainly achieve it; however, they defer the beginning of treatment to a later time, and this is where the patient's thought is stopped. For this reason, Prochaska, DiClemente & Norcross (1992) argue that many psycho-social treatment programs in the field of addiction treatment have not come to satisfactory fruition because they postulate that new clients are highly motivated to participate in their own treatment. In fact, the issue of motivation is often ignored in treatment planning while the majority of clients suffering many behavioral disorders lack enough motivation for change at the beginning of treatment (Ghorbani, 2005). Therefore, such programs and interventions as motivational interviewing direct therapists towards a path wherein they can discover and call for the patients' perceptions about the current situation and their motivation for change. The practitioner of motivational interviewing asks addicts why they want to make change and how they want to realize it, rather than tells them what to do. Thus, the patient must give reasons for the change not the therapist (Navidian, 2009).

Motivational interviewing is not a completely new model of intervention, but it is a combination of principles and techniques derived from a very wide range of models of psychotherapy and behavioral change (Cox &Klinger, 2007). The aim of the motivational interviewing is to stimulate the change and this is what some people need it. Evidence supports this point that the motivational interviewing is an intervention that is effective by itself. Review of the related literature shows that the motivational interviewing is a much more effective alternative than active treatment programs. Therefore, it is reasonable to expect motivational interviewing to be effective at least for some clients and patients, especially when they need some encouragement to abandon their abnormal behaviors.

On the other hand, the establishment of an emotional connection with participants can enhance their strength, self-awareness, self-esteem, foresight and objectivity, self-efficacy; and control their emotions; and strengthen their spiritual experiences (Zarrinkalak, 2010). Rubak, Sandbeak, Lauritzin & Christensen (2005) conducted a meta-analysis of 72 randomized controlled studies on the effectiveness of motivational interviewing in the areas of healthcare including diet, exercise, diabetes, and substance abuse and observed a significant effect size in 74 percent of the studies. Among the studies with the duration of at least 60 minutes, 81 percent of the motivational interviewing programs showed an acceptable effect size. Overall, the motivational interviewing was found to be more effective than traditional recommendations and advice in 75% of the studies.

Given the high prevalence of addiction as a chronic, debilitating, and life-style-related disease, the need for studying in this area is strongly felt. Therefore, the main research question here was formulated as: is motivational interviewing effective in lifestyle changes of the female addicts under way for recovery?

Method

A quasi-experimental design along with pretest-posttest and control group was employed for this study. The population of the study consisted of all the addicted women who had referred to the rehab center of Isfahan Welfare Organization for treatment. The number of 32 female addicts constituted the study sample that were selected with regard to the inclusion and exclusion criteria and were randomly assigned to an experimental group and a control group. The inclusion criteria were: literacy, no mental retardation, and not suffering any disease that stops active participation in the group.

Instrument

Lifestyle questionnaire: This questionnaire has been developed by Lali, Abedi & Kajbaf (2012), and contains 70 items that are scored based on a Likert scale as always (3), often (2), sometimes (1) never (0). The questionnaire consists of 10 components, namely physical health; exercise and fitness; weight control and nutrition; disease prevention; psychological health; spiritual health; social health; avoidance of medications, drug, and alcohol consumption; accident prevention; and environmental health. High score on each of the components and the whole questionnaire represents appropriate level of lifestyle. The higher the score on the subscales one obtains, the better lifestyle he/she has. The scale's developers evaluated the content validity of the questionnaire by ten experts. Reliability was also evaluated through Cronbach's alpha and test-retest method whose coefficients were obtained in the range of .76 to .89 and .84 to .94, respectively. In the present study, internal consistency coefficient was obtained .85.

Procedure

First, lifestyle questionnaire was distributed among all the participants (control and experimental groups) as a pre-test. Thereafter, 8 group-counseling sessions based on motivational interviewing were administered to the experimental group but the control group received no special training in this regard. Finally, the two groups took the post-test and data were analyzed. The structure of motivational interviewing sessions was extracted from Velasquez, Maurer, Crouch, & DiClemente's book entitled Group Treatment for Substance Abuse: A Stages-of-Change Therapy Manual (2001). The structure and content of each session are presented in the table below.

Table 1: The structure and content of each session

Sessions	***Content***
First	Acquaintance: Introduction, group norms and processes, the introduction of motivational approach, the introduction of change stages, staging exercise
Second	Description of a life day of addiction, discussion about values and the role of individual and social values in life and finally the discovery of the differences between values and substance abuse behavior
Third	Evaluation of the pros and cons of drug use and eventually the achievement of equilibrium in decision-making, relationships: recognition of the effects of addictive behavior on family, work and social life; completion of the questionnaire on my relationship
Fourth	Identification of triggers and stimulus control, stress management and mutual conditioning, practice of relaxation techniques
Fifth	Rewarding success and reinforcement management, completion of bonus guide to my success. Training skills and steps of effective communication through role-play technique
Sixth	Effective refusal (practice of substance offer through role-play technique), acceptance of criticism: teaching effective communication skills to provide or receive feedback and criticism
Seventh	Methods of control of thoughts, temptations, and desires; attention to irrational thoughts, brainstorming and discussions on ways to control the irrational thoughts and discussion on the difference between temptations and desires and replacing them with positive thoughts and behaviors
Eighth	New ways to enjoy life: brainstorming among group members and offering enjoyable activities without drug use, identification of existing and potential supportive relationships, identification of needs and resources: identification of the areas of life that have not developed due to drug use, identification of the available resources for compensation

Results

The research sample consisted of 32 women who were equally divided into an experimental and a control group. In terms of education level, 10% of the participants had passed just elementary school period, 70% up to diploma, 15% had associate's degree, and 5% had bachelor's degree. As well, the average age of the participants was 23 years and the standard deviation value was 2.12. Descriptive statistics of the variables are presented in the following table.

Table 2: Descriptive statistics of lifestyle components is in the women under way for recovery

Components	*Pretest/experimental group*		*Posttest/experimental group*		*Pretest/control group*		*Posttest/ control group*	
	Mean	***SD***	***Mean***	***SD***	***Mean***	***SD***	***Mean***	***SD***
Physical health	10.63	1.20	12.88	1.58	11.00	1.82	12.56	1.20
Exercise and fitness	11.63	1.20	11.75	1.34	11.25	1.80	11.44	1.54
Weight control and nutrition	10.12	1.02	11.75	1.18	10.25	1.18	11.31	1.07
Disease prevention	10.56	1.63	12.00	1.36	10.88	1.66	11.19	1.51
Psychological health	10.88	1.02	12.25	1.30	11.44	1.15	11.19	1.60
Spiritual health	9.19	1.10	10.63	.61	9.81	1.55	9.94	1.61
Social health	9.06	1.12	11.00	1.31	9.75	1.52	10.44	1.36
Drug and alcohol avoidance	9.25	1.29	11.38	1.02	9.56	1.59	10.12	1.50
Accident prevention	10.62	1.31	11.94	1.48	11.25	1.69	11.38	1.62
Environmental health	11.50	1.21	11.81	1.31	11.81	1.16	11.44	.72

Multivariate analysis of covariance (MANCOVA) should be used to evaluate the effectiveness of the intervention. One of the assumptions of this analysis is the equality of error variances which is presented in the table below through Leven's test.

Table 3: Leven's test results

Components	***F***	***Df***	***Sig.***
Physical health	1.64	30	.21
Exercise and fitness	.07	30	.78
Weight control and nutrition	1.04	30	.31
Disease prevention	.20	30	.65
Psychological health	.04	30	.83
Spiritual health	.05	30	.81
Social health	2.06	30	.16
Drug and alcohol avoidance	.81	30	.37
Accident prevention	1.43	30	.36
Environmental health	1.43	30	.24

As it can be observed in the above table, the assumption of the equality of error variances has been met. Therefore, MANCOVA test was run and a significant difference was revealed between the two groups (Wilk's Lambda=.22, F=21.154, P<.001). To examine the difference in patterns, univariate analysis of covariance was used as follows.

Table 4: Results of univariate analysis of covariance representing difference in patterns

Components	*Mean square*	*F*	*Sig.*	*Effect size*
Physical health	3.48	4.40	.04	.51
Exercise and fitness	2.22	2.13	.16	.28
Weight control and nutrition	1.55	1.64	.21	.23
Disease prevention	8.39	5.25	.03	.58
Psychological health	8.40	6.16	.02	.65
Spiritual health	4.45	5.14	.03	.57
Social health	7.64	6.20	.02	.65
Drug and alcohol avoidance	7.38	7.01	.01	.71
Accident prevention	5.91	5.25	.03	.58
Environmental health	1.36	1.28	.27	.19

As it is observed in the table above, there is a significant difference between the two groups in the subscales of physical health, disease prevention, psychological health, spiritual health, social health, drug and alcohol avoidance, and accident prevention. Given the descriptive statistics, the experimental group gained higher scores in all the items. This clearly shows the effectiveness of motivational interviewing in the promotion of addicted women's lifestyle.

Discussion and Conclusion

This research aimed to investigate the efficacy of treatment programs based on motivational interviewing in the lifestyle changes of female addicts under way for recovery. The results showed the efficiency of motivational interviewing in changing the lifestyle of the addicted women in the rehab center. More precisely, it was revealed that motivational interviewing has a significant impact upon physical health, disease prevention, psychological health, spiritual health, social health, drug and alcohol avoidance and accident prevention. However, motivational interviewing has not had any significant effect on the subscales of exercise and fitness, weight control and nutrition and environmental health. The dominant commonsense goes for the idea that addiction and substance abuse is mainly a male phenomenon. In other words, it is believed that women are much less likely than men to be entrapped in addiction and this belief is more strongly held in our country because the familiar role of loving and caring mother and wife has nothing to do with addiction in Iranian community and the mother's lifestyle as an effective model affects the lifestyle of other family members and even of friends.

Motivational interviewing approach starts with the assumption that responsibility and change potential are at play in clients; therefore, counselors have the responsibility for creating a set of conditions that boosts the clients' motivation and commitment to change (Rollnick, Miller & Butler, 2008). Since change does not happen instantaneously but it requires time and energy, most of the primary processes of change occur within the individual in such a way that he/she perceives that it is worthy to spend time and put efforts towards change. In addition, motivation plays an important part in individuals' decision to change drug use behavior (Velasquez et al., 2011). Results of this study are consistent with those of Navidian, Abedi, Baghban, Fetehizadeh, & Poursharifi's study (2010). Hyman, Pavlik, Taylor, Goodrick & Moye (2007) undertook a study with the aim of examining the effectiveness of motivational interviewing in diet and other health behaviors belonging to healthy lifestyle. The results showed that the group treated with motivational interviewing showed the greatest reduction in salt intake after six months which is representative of the impact of this motivational approach on health-related behavioral change. Overall, the results of the meta-analysis done by Dunn, DeRoo, Rivara (2001) on the use of motivational interviewing in the change of health behavior indicate that motivational interviewing exerts the greatest impact on such areas as dietary changes and increased physical activity. Similarly, Knight, Mc Gowan, Dickens, Bundy's meta-analysis revealed that the majority of studies have reported positive conclusions in terms of the efficacy of motivational interviewing on lifestyle change(2006). Among the limitations of the present study was that it was conducted on women and there was not the possibility of conducting a follow-up; therefore, it is recommended that such a study should be done on men with the possibility of conducting a follow-up.

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